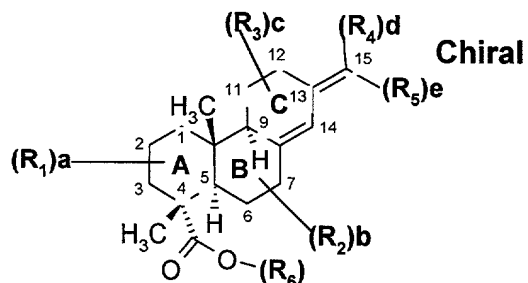


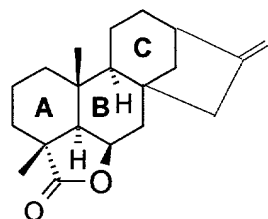
WHAT IS CLAIMED IS:

1. A method of treating a chemokine mediated disease state, or a disease state mediated by a receptor of the chemokine, in a mammal in need of such treatment, which comprises administering to the mammal an effective amount of a compound selected from the group consisting of compounds of formula (I), (II), (III), (IV), (V), (VI), (VII), (VIII), (IX), (X), (XI), (XII), (XIII), (XIV) or (XV) or a pharmaceutically acceptable salt thereof:

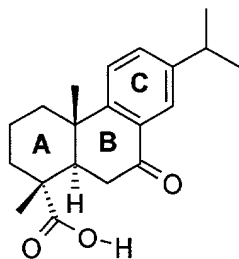
(I)



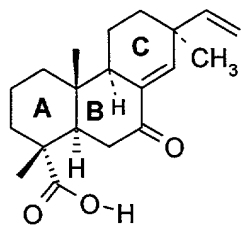
(II)



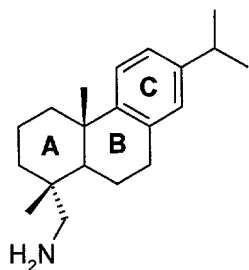
(III)



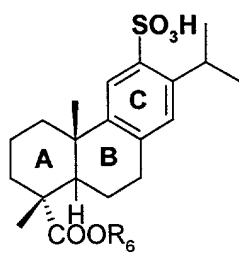
(IV)



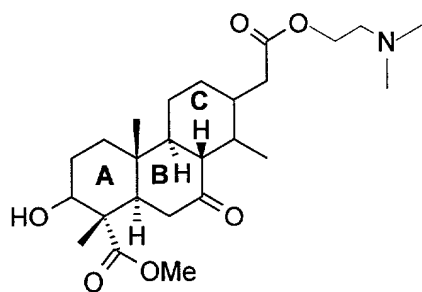
(V)



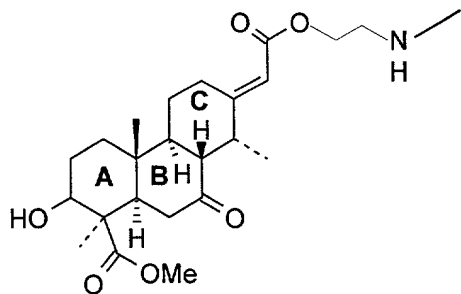
(VI)



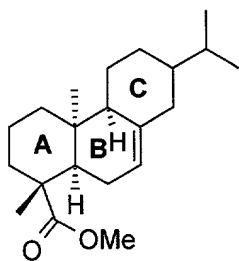
(VII)



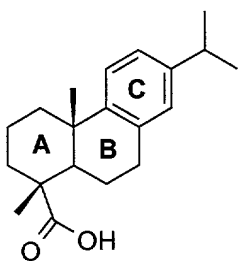
(VIII)



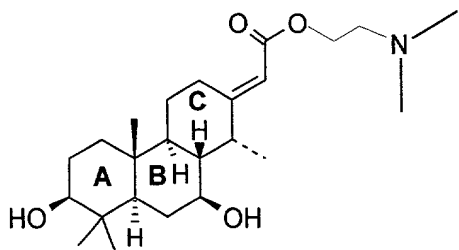
(IX)



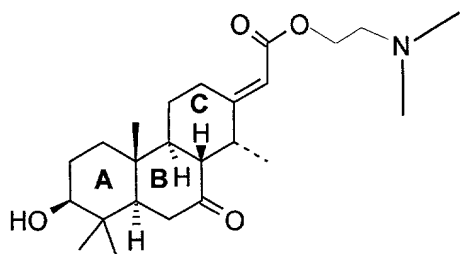
(X)



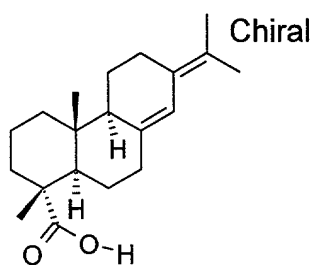
10 (XI)



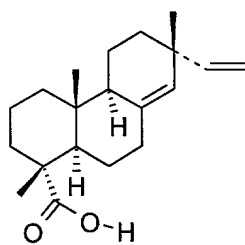
(XII)



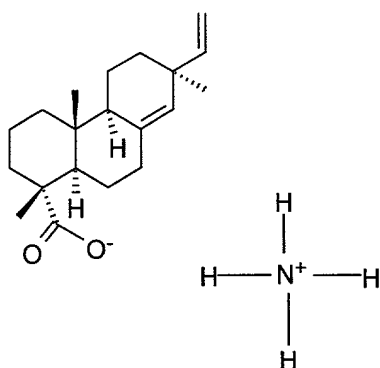
(XIII)



(XIV)



(XV)



wherein:

"a" is 0 or an integer from 1 to 8;

"b" is 0 or an integer from 1 to 7;

"c" is 0 or an integer from 1 to 6;

"d" is 0 or an integer from 1 to 10;

"e" is 0 or an integer from 1 to 10;

5 Ring A is aromatic or non-aromatic and may optionally be heterocyclic with one or more heteroatoms selected from the group consisting of oxygen, sulfur and nitrogen;

Ring B is aromatic or non-aromatic and may optionally be heterocyclic with one or more heteroatoms selected from the group consisting of oxygen, sulfur and nitrogen;

Ring C is aromatic or non-aromatic and may optionally be heterocyclic with one or more

10 heteroatoms selected from the group consisting of oxygen, sulfur and nitrogen;

R₁, R₂ and R₃ at each occurrence may independently be selected from substituents having 25 or fewer atoms, wherein the substituent may be selected from the group consisting of: H; substituted or unsubstituted alkyls; substituted or unsubstituted C₁₋₁₀ alkyls; substituted or unsubstituted C₁₋₆ alkyls; substituted or unsubstituted cycloalkyls; substituted or unsubstituted C₃₋₆ cycloalkyls; substituted or unsubstituted alkenyls; substituted or unsubstituted C₂₋₆ alkenyls; substituted or unsubstituted alkynyls; substituted or unsubstituted C₂₋₆ alkynyls; substituted or unsubstituted aryls; substituted or unsubstituted heterocycles; hydroxyls; aminos; nitros; thiols; primary, secondary or tertiary amines; imines; amides; phosphonates; phosphines; carbonyls; carboxyls; silyls; ethers; thioethers; sulfonyls; sulfonates; selenoethers; ketones; aldehydes; esters; -CF₃; -CN; and combinations thereof;

R₄, R₅ and R₆ at each occurrence may independently be selected from substituents having 20 or fewer atoms, wherein the substituent may be selected from the group consisting of: H; substituted or unsubstituted alkyls; substituted or unsubstituted C₁₋₁₀ alkyls; substituted or unsubstituted C₁₋₆ alkyls; substituted or unsubstituted cycloalkyls; substituted or unsubstituted C₃₋₆ cycloalkyls; substituted or unsubstituted alkenyls; substituted or unsubstituted C₂₋₆ alkenyls; substituted or unsubstituted alkynyls; substituted or unsubstituted C₂₋₆ alkynyls; substituted or unsubstituted aryls; substituted or unsubstituted heterocycles; hydroxyls; aminos; nitros; thiols; primary, secondary or tertiary amines; imines; amides; phosphonates; phosphines; carbonyls; carboxyls; silyls; ethers; thioethers; sulfonyls; sulfonates; selenoethers; ketones; aldehydes; esters; -CF₃; -CN; and combinations thereof;

R₁, R₂, R₃, R₄, R₅ and R₆ may together define one or more exocyclic rings joining one or more of Rings A, B and C, and an exocyclic ring may be heterocyclic;

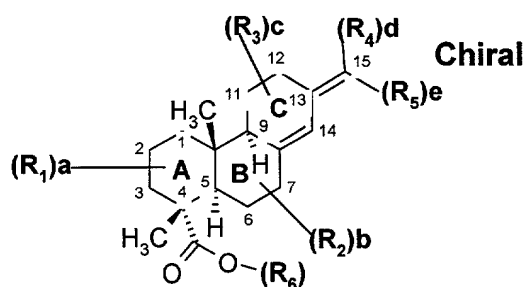
"chiral" denotes that a compound may be chiral; and,

the chemokine receptor is selected from the group consisting of CCR-1, CCR-3, CCR-4 and CCR-5 and the chemokine is selected from the group consisting of RANTES and chemokines that bind to the chemokine receptor.

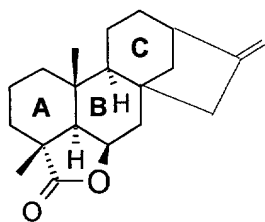
5

2. A method of modulating the activity of a chemokine or a chemokine receptor in host, comprising administering to the host an effective amount of a compound selected from the group consisting of compounds of formula (I), (II), (III), (IV), (V), (VI), (VII), (VIII), (IX), (X), (XI), (XII), (XIII), (XIV) or (XV) or a pharmaceutically acceptable salt thereof:

10 (I)

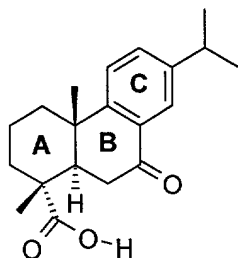


(II)

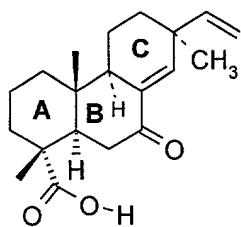


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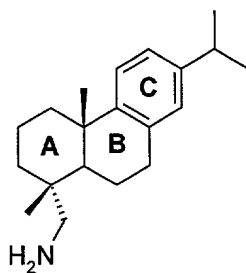
(III)



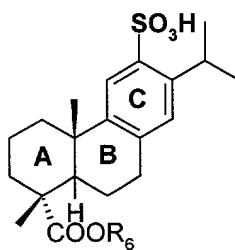
(IV)



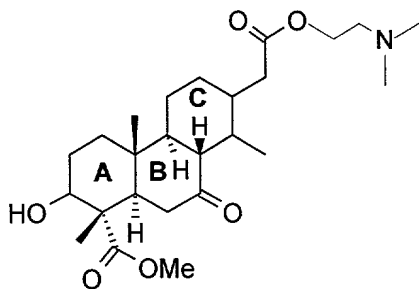
(V)



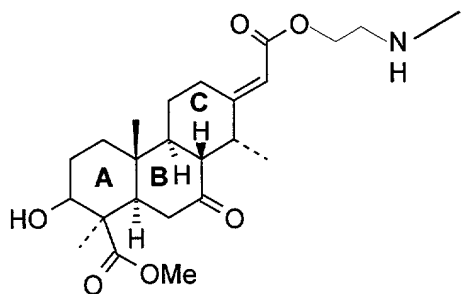
(VI)



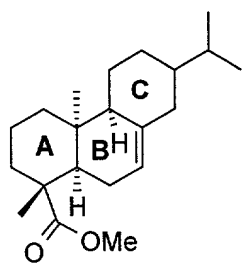
10 (VII)



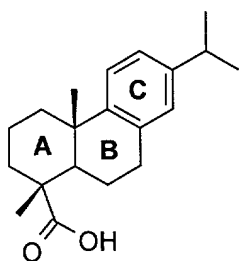
(VIII)



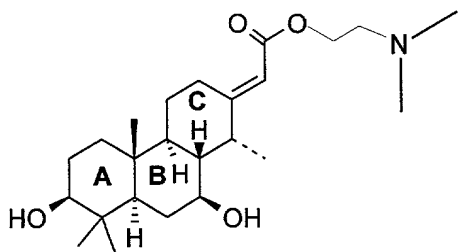
(IX)



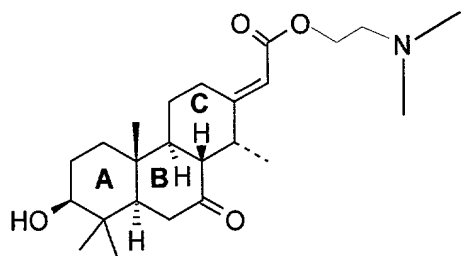
(X)



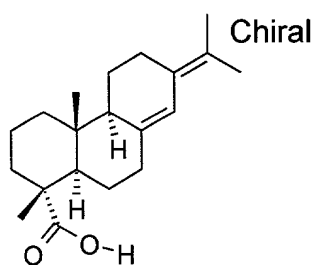
10 (XI)



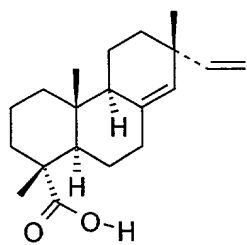
(XII)



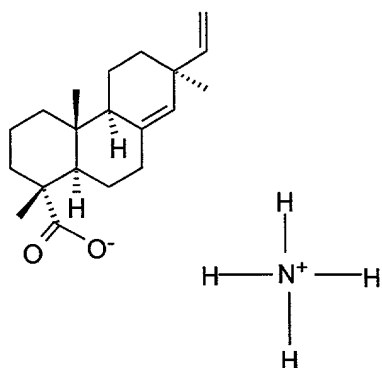
(XIII)



(XIV)



(XV)



wherein:

R₁, R₂, R₃, R₄, R₅ and R₆ may together define one or more exocyclic rings joining one or more of Rings A, B and C, and an exocyclic ring may be hetrocyclic;

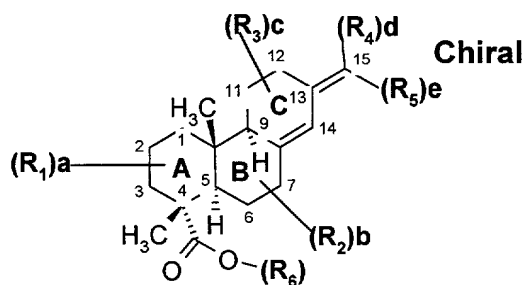
"chiral" denotes that a compound may be chiral; and,

the chemokine receptor is selected from the group consisting of CCR-1, CCR-3, CCR-4 and CCR-5

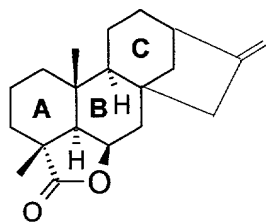
5 and the chemokine is selected from the group consisting of RANTES and chemokines that bind to the chemokine receptor.

3. A method of inhibiting the interaction of a chemokine with a chemokine receptor in a mammal, comprising administering to the mammal an effective amount of a compound selected from the group consisting of compounds of formula (I), (II), (III), (IV), (V), (VI), (VII), (VIII), (IX), (X), (XI), (XII), (XIII), (XIV) or (XV) or a pharmaceutically acceptable salt thereof:

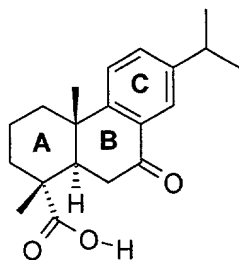
(I)



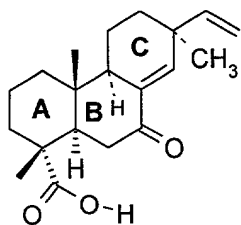
(II)



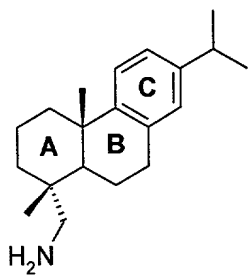
(III)



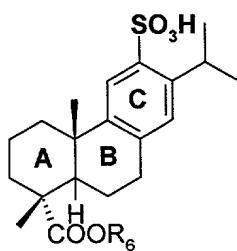
(IV)



(V)

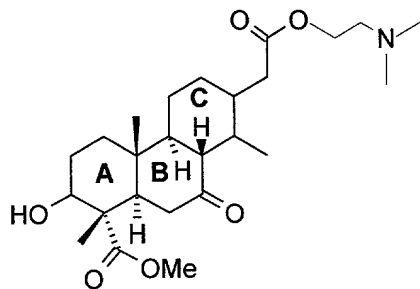


(VI)

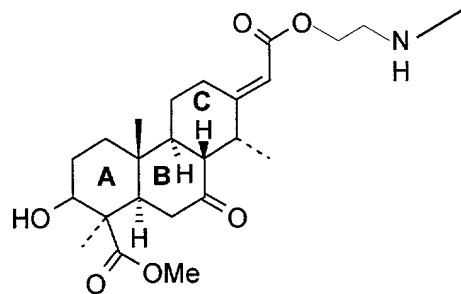


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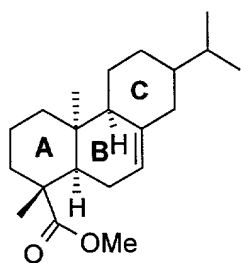
(VII)



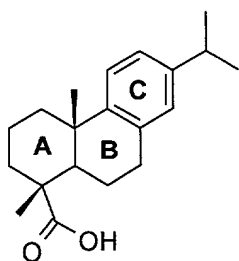
(VIII)



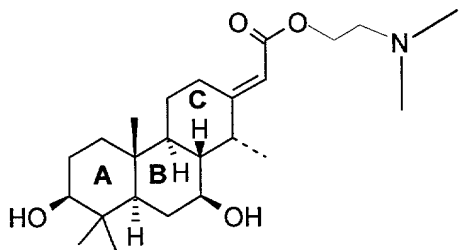
(IX)



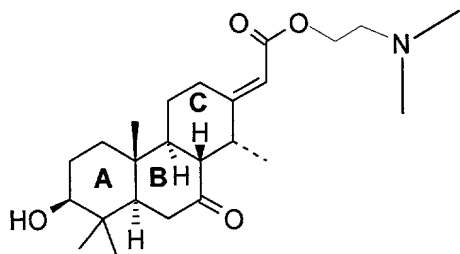
(X)



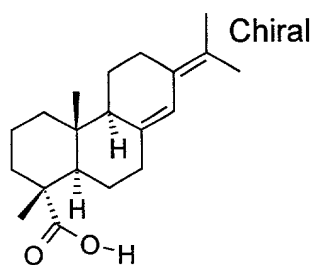
10 (XI)



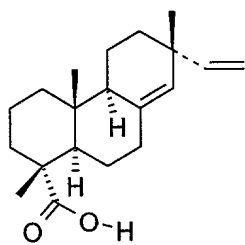
(XII)



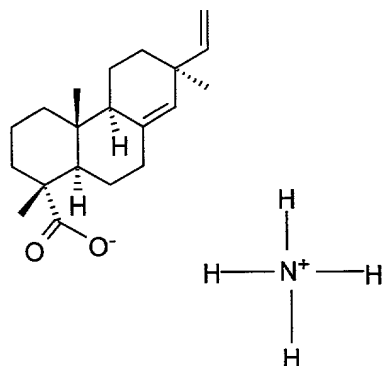
(XIII)



(XIV)



(XV)



wherein:

R₁, R₂, R₃, R₄, R₅ and R₆ may together define one or more exocyclic rings joining one or more of Rings A, B and C, and an exocyclic ring may be heterocyclic;

"chiral" denotes that a compound may be chiral; and,

the chemokine receptor is selected from the group consisting of CCR-1, CCR-3, CCR-4 and CCR-5 and the chemokine is selected from the group consisting of RANTES and chemokines that bind to the chemokine receptor.

4. The method of claim 1, wherein the compound binds to the chemokine receptor with a binding affinity below 100 nM.

5. The method of claim 2, wherein the compound binds to the chemokine receptor with a binding affinity below 100 nM.

6. The method of claim 3, wherein the compound binds to the chemokine receptor with a binding affinity below 100 nM.

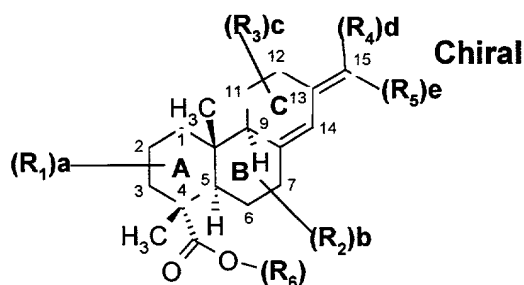
7. The method of claim 1, wherein the chemokine mediated disease is selected from the group consisting of autoimmune diseases, inflammation, chronic and acute inflammation, psoriasis, gout, acute pseudogout, acute gouty arthritis, arthritis, rheumatoid arthritis, osteoarthritis, allograft rejection, chronic transplant rejection, asthma, atherosclerosis, cardiovascular, mononuclear-phagocyte dependent lung injury, idiopathic pulmonary fibrosis, atopic dermatitis, chronic obstructive pulmonary disease, adult respiratory distress syndrome, acute chest syndrome in sickle cell disease, inflammatory bowel disease, Crohn's disease, ulcerative colitis, septic shock, endotoxic shock, urosepsis, glomerulonephritis, lupus nephritis, thrombosis, graft vs. host reaction, angiogenesis, NSCLC, ovarian cancer, pancreatic cancer, breast carcinoma, colon carcinoma, rectum carcinoma, lung carcinoma, oropharynx carcinoma, hypopharynx carcinoma, esophagus carcinoma, stomach carcinoma, pancreas carcinoma, liver carcinoma, gallbladder carcinoma, bile duct carcinoma, small intestine carcinoma, urinary tract carcinoma, kidney carcinoma, bladder carcinoma, urothelium carcinoma, female genital tract carcinoma, cervix carcinoma, uterus carcinoma, ovarian carcinoma, choriocarcinoma, gestational trophoblastic disease, male genital tract carcinoma, prostate carcinoma, seminal vesicles carcinoma, testes carcinoma, germ cell tumors, endocrine gland carcinoma, thyroid carcinoma, adrenal carcinoma, pituitary gland carcinoma, skin

carcinoma, hemangiomas, melanomas, sarcomas, bone and soft tissue sarcoma, Kaposi's sarcoma, tumors of the brain, tumors of the nerves, tumors of the eyes, tumors of the meninges, astrocytomas, gliomas, glioblastomas, retinoblastomas, neuromas, neuroblastomas, Schwannomas, meningiomas, solid tumors arising from hematopoietic malignancies (such as leukemias, chloromas,

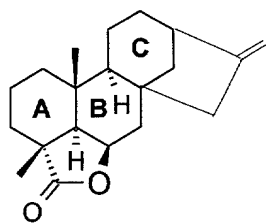
5 plasmacytomas and the plaques and tumors of mycosis fungoides and cutaneous T-cell lymphoma/leukemia), solid tumors arising from lymphomas, viral infections and HIV infection.

8. A pharmaceutical composition comprising a compound selected from the group consisting of compounds of formula (I), (II), (III), (IV), (V), (VI), (VII), (VIII), (IX), (X), (XI), (XII), (XIII),
10 (XIV) or (XV), or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier, excipient or diluent:

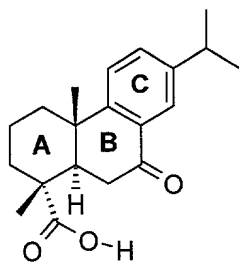
(I)



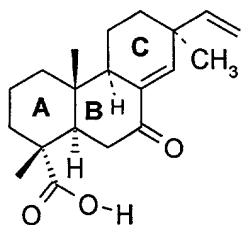
(II)



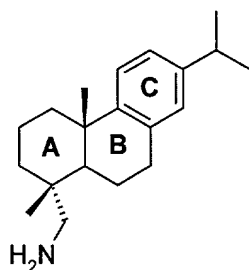
(III)



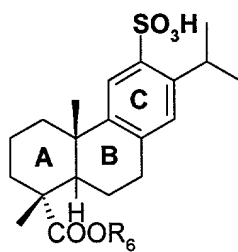
(IV)



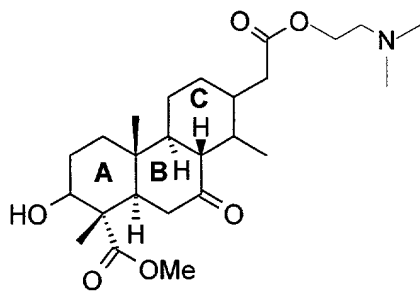
(V)



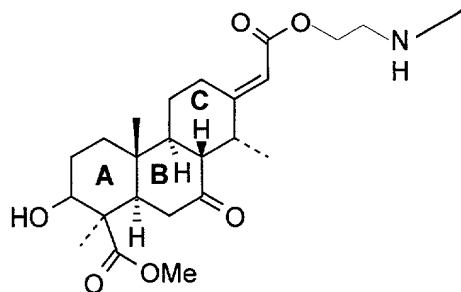
(VI)



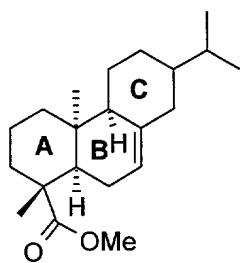
10 (VII)



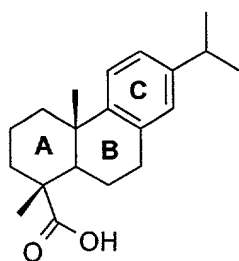
(VIII)



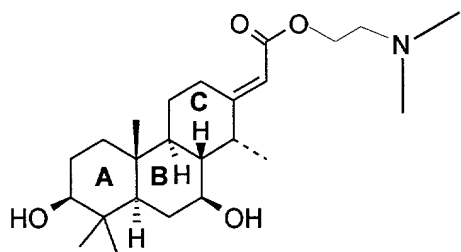
(IX)



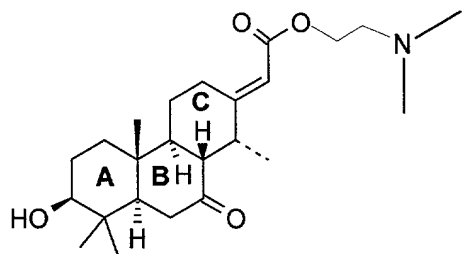
(X)



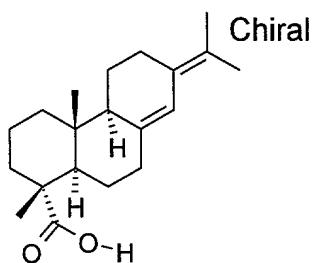
10 (XI)



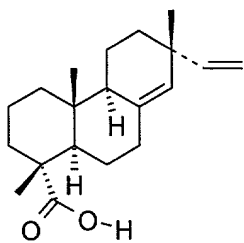
(XII)



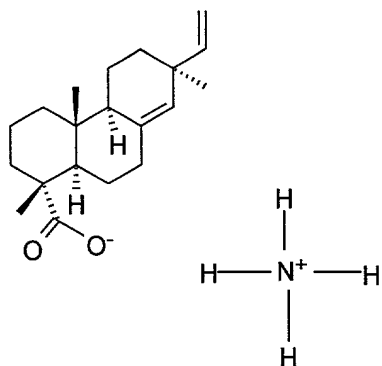
(XIII)



(XIV)



(XV)



wherein:

"a" is 0 or an integer from 1 to 8;

"b" is 0 or an integer from 1 to 7;

"c" is 0 or an integer from 1 to 6;

"d" is 0 or an integer from 1 to 10;

"e" is 0 or an integer from 1 to 10;

5 Ring A is aromatic or non-aromatic and may optionally be heterocyclic with one or more heteroatoms selected from the group consisting of oxygen, sulfur and nitrogen;

Ring B is aromatic or non-aromatic and may optionally be heterocyclic with one or more heteroatoms selected from the group consisting of oxygen, sulfur and nitrogen;

Ring C is aromatic or non-aromatic and may optionally be heterocyclic with one or more

10 heteroatoms selected from the group consisting of oxygen, sulfur and nitrogen;

R₁, R₂ and R₃ at each occurrence may independently be selected from substituents having 25 or fewer atoms, wherein the substituent may be selected from the group consisting of: H; substituted or unsubstituted alkyls; substituted or unsubstituted C₁₋₁₀ alkyls; substituted or unsubstituted C₁₋₆ alkyls; substituted or unsubstituted cycloalkyls; substituted or unsubstituted C₃₋₆ cycloalkyls; substituted or unsubstituted alkenyls; substituted or unsubstituted C₂₋₆ alkenyls; substituted or unsubstituted alkynyls; substituted or unsubstituted C₂₋₆ alkynyls; substituted or unsubstituted aryls; substituted or unsubstituted heterocycles; hydroxyls; aminos; nitros; thiols; primary, secondary or tertiary amines; imines; amides; phosphonates; phosphines; carbonyls; carboxyls; silyls; ethers; thioethers; sulfonyls; sulfonates; selenoethers; ketones; aldehydes; esters; -CF₃; -CN; and combinations thereof.

R₄, R₅ and R₆ at each occurrence may independently be selected from substituents having 20 or fewer atoms, wherein the substituent may be selected from the group consisting of: H; substituted or unsubstituted alkyls; substituted or unsubstituted C₁₋₁₀ alkyls; substituted or unsubstituted C₁₋₆ alkyls; substituted or unsubstituted cycloalkyls; substituted or unsubstituted C₃₋₆ cycloalkyls; substituted or unsubstituted alkenyls; substituted or unsubstituted C₂₋₆ alkenyls; substituted or unsubstituted alkynyls; substituted or unsubstituted C₂₋₆ alkynyls; substituted or unsubstituted aryls; substituted or unsubstituted heterocycles; hydroxyls; aminos; nitros; thiols; primary, secondary or tertiary amines; imines; amides; phosphonates; phosphines; carbonyls; carboxyls; silyls; ethers; thioethers; sulfonyls; sulfonates; selenoethers; ketones; aldehydes; esters; -CF₃; -CN; and combinations thereof.

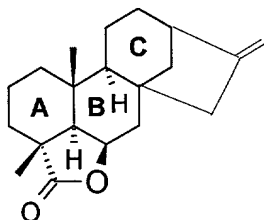
R₁, R₂, R₃, R₄, R₅ and R₆ may together define one or more exocyclic rings joining one or more of Rings A, B and C, and an exocyclic ring may be hetrocyclic;

"chiral" denotes that a compound may be chiral; and,

the compound binds with high affinity to a chemokine receptor selected from the group consisting of CCR-1, CCR-3, CCR-4 and CCR-5.

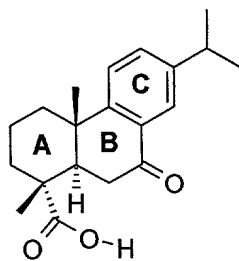
- 5 9. The pharmaceutical composition of claim 8, wherein the compound has the following formula:

(II)



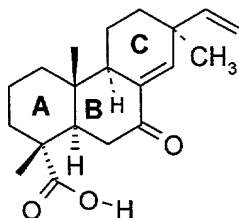
10. The pharmaceutical composition of claim 8, wherein the compound has the following formula:

(III)



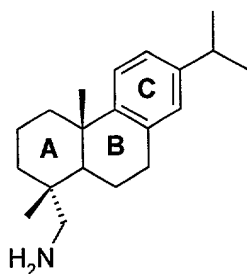
- 15 11. The pharmaceutical composition of claim 8, wherein the compound has the following formula:

(IV)



12. The pharmaceutical composition of claim 8, wherein the compound has the following formula:

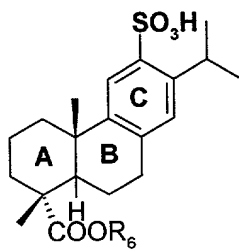
(V)



5

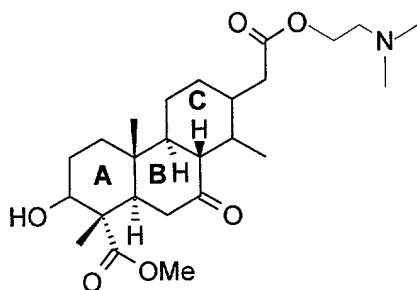
13. The pharmaceutical composition of claim 8, wherein the compound has the following formula:

(VI)



14. The pharmaceutical composition of claim 8, wherein the compound has the following formula:

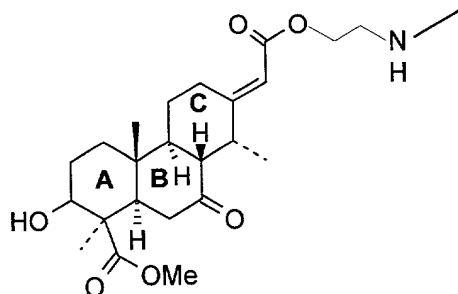
(VII)



15

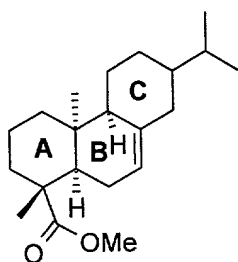
15. The pharmaceutical composition of claim 8, wherein the compound has the following formula:

(VIII)



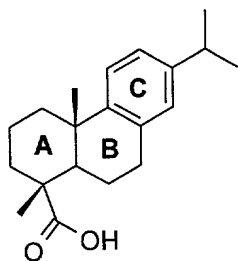
16. The pharmaceutical composition of claim 8, wherein the compound has the following
5 formula:

(IX)



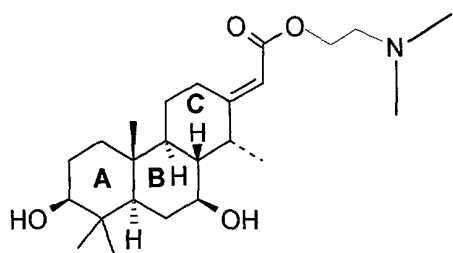
17. The pharmaceutical composition of claim 8, wherein the compound has the following
10 formula:

(X)



18. The pharmaceutical composition of claim 8, wherein the compound has the following formula:

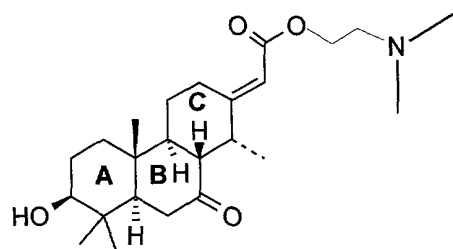
(XI)



5

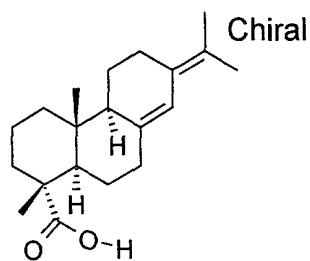
19. The pharmaceutical composition of claim 8, wherein the compound has the following formula:

(XII)



20. The pharmaceutical composition of claim 8, wherein the compound has the following formula:

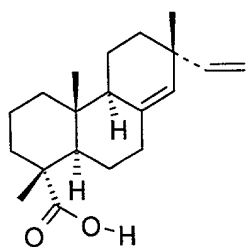
(XIII)



15

21. The pharmaceutical composition of claim 8, wherein the compound has the following formula:

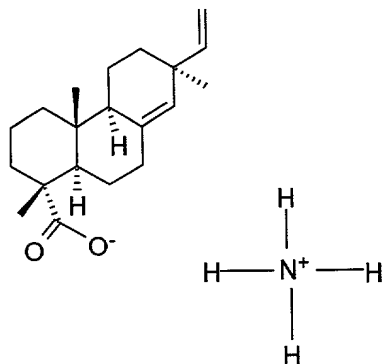
(XIV)



5

22. The pharmaceutical composition of claim 8, wherein the compound has the following formula:

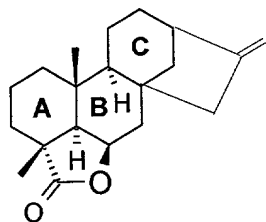
(XV)



T O C 1 0 1 1 1 2 1 3 1 4 1 5 1 6 1 7 1 8 1 9 2 0 2 1 2 2 2 3 2 4 2 5 2 6 2 7 2 8 2 9 3 0 3 1 3 2 3 3 3 4 3 5 3 6 3 7 3 8 3 9 4 0 4 1 4 2 4 3 4 4 4 5 4 6 4 7 4 8 4 9 5 0 5 1 5 2 5 3 5 4 5 5 5 6 5 7 5 8 5 9 6 0 6 1 6 2 6 3 6 4 6 5 6 6 6 7 6 8 6 9 7 0 7 1 7 2 7 3 7 4 7 5 7 6 7 7 7 8 7 9 8 0 8 1 8 2 8 3 8 4 8 5 8 6 8 7 8 8 8 9 9 0 9 1 9 2 9 3 9 4 9 5 9 6 9 7 9 8 9 9

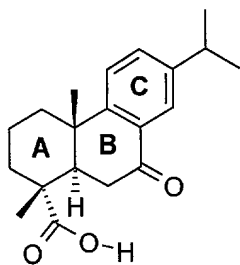
23. The method of claim 1, wherein the compound has the following formula:

(II)



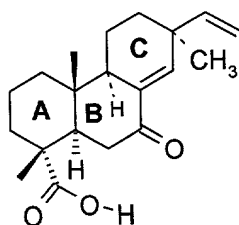
24. The method of claim 1, wherein the compound has the following formula:

(III)



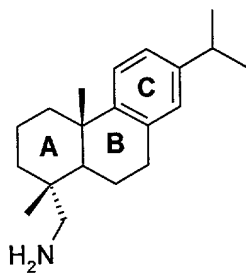
25. The method of claim 1, wherein the compound has the following formula:

5 (IV)



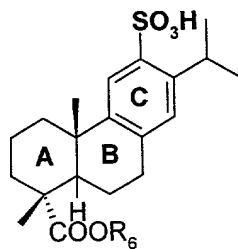
26. The method of claim 1, wherein the compound has the following formula:

(V)



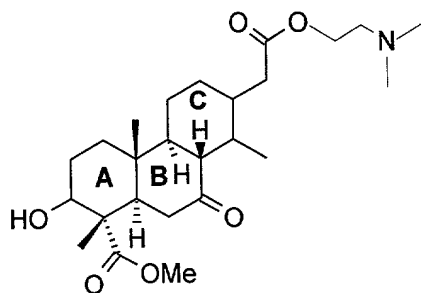
27. The method of claim 1, wherein the compound has the following formula:

(VI)

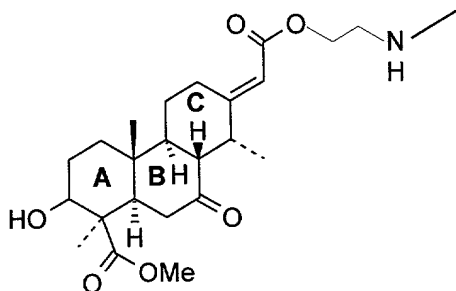


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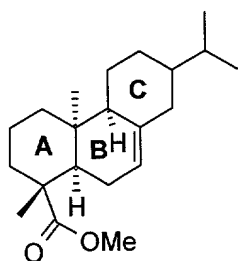
28. The method of claim 1, wherein the compound has the following formula:
(VII)



29. The method of claim 1, wherein the compound has the following formula:
(VIII)

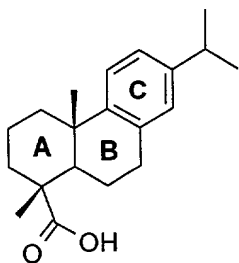


30. The method of claim 1, wherein the compound has the following formula:
(IX)



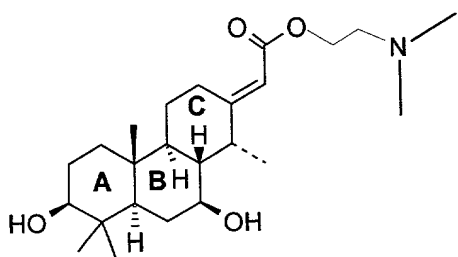
31. The method of claim 1, wherein the compound has the following formula:

(X)



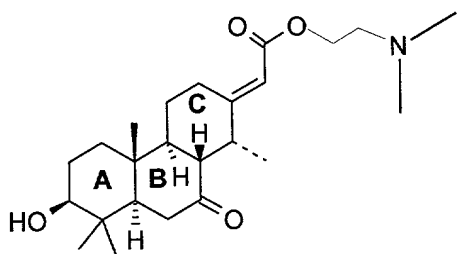
32. The method of claim 1, wherein the compound has the following formula:

5 (XI)



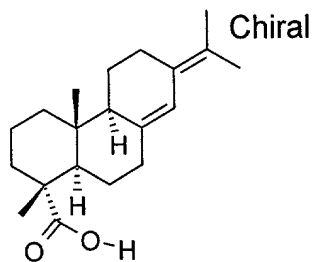
33. The method of claim 1, wherein the compound has the following formula:

(XII)



34. The method of claim 1, wherein the compound has the following formula:

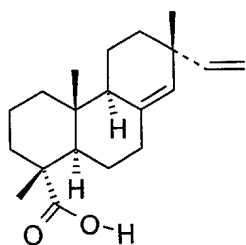
(XIII)



15

35. The method of claim 1, wherein the compound has the following formula:

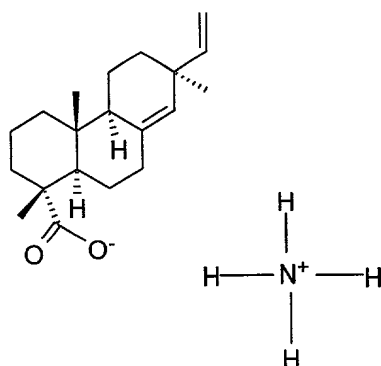
(XIV)



5

36. The method of claim 1, wherein the compound has the following formula:

(XV)



37. The method of claim 1 wherein the disease is an autoimmune disease or an inflammatory disease in a human patient.

38. A method of treating a disease comprising administering to a patient in need of such treatment an effective amount of a RANTES receptor ligand, wherein the diseases is selected from the group consisting of autoimmune diseases, inflammation, chronic and acute inflammation, psoriasis, gout, acute pseudogout, acute gouty arthritis, arthritis, rheumatoid arthritis, osteoarthritis, allograft rejection, chronic transplant rejection, asthma, atherosclerosis, cardiovascular, mononuclear-phagocyte dependent lung injury, idiopathic pulmonary fibrosis, atopic dermatitis, chronic obstructive pulmonary disease, adult respiratory distress syndrome, acute chest syndrome in sickle cell disease, inflammatory bowel disease, Crohn's disease, ulcerative colitis, septic shock, endotoxic shock, urosepsis, glomerulonephritis, lupus nephritis, thrombosis, graft vs. host reaction, angiogenesis, NSCLC, ovarian cancer, pancreatic cancer, breast carcinoma, colon carcinoma, rectum carcinoma, lung carcinoma, oropharynx carcinoma, hypopharynx carcinoma, esophagus

carcinoma, stomach carcinoma, pancreas carcinoma, liver carcinoma, gallbladder carcinoma, bile duct carcinoma, small intestine carcinoma, urinary tract carcinoma, kidney carcinoma, bladder carcinoma, urothelium carcinoma, female genital tract carcinoma, cervix carcinoma, uterus carcinoma, ovarian carcinoma, choriocarcinoma, gestational trophoblastic disease, male genital tract carcinoma, prostate carcinoma, seminal vesicles carcinoma, testes carcinoma, germ cell tumors, endocrine gland carcinoma, thyroid carcinoma, adrenal carcinoma, pituitary gland carcinoma, skin carcinoma, hemangiomas, melanomas, sarcomas, bone and soft tissue sarcoma, Kaposi's sarcoma, tumors of the brain, tumors of the nerves, tumors of the eyes, tumors of the meninges, astrocytomas, gliomas, glioblastomas, retinoblastomas, neuromas, neuroblastomas, Schwannomas, meningiomas, solid tumors arising from hematopoietic malignancies (such as leukemias, chloromas, plasmacytomas and the plaques and tumors of mycosis fungoides and cutaneous T-cell lymphoma/leukemia), solid tumors arising from lymphomas, viral infections and HIV infection.